

NWS FORM E-5 <small>(11-88)</small> <small>(PRES. by NWS Instruction 10-924)</small>	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE	HYDROLOGIC SERVICE AREA (HSA) WFO Jackson, Mississippi
MONTHLY REPORT OF HYDROLOGIC CONDITIONS		REPORT FOR: MONTH YEAR August 2015
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283		SIGNATURE Alan E. Gerard, Meteorologist In-Charge DATE 9/11/2015

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

☐ An X inside this box indicates that no river flooding occurred within this hydrologic service area.

Synopsis...

August was an overall dry month this year. According to the U.S. Drought Monitor, there are only 5 counties within the HSA that do not have any sort of drought category in them whatsoever. Every other county or parish in the HSA ranges from D0 (abnormally dry) to D2 (severe drought). Compared to normal rainfall values, the Jackson, Hattiesburg, and Greenwood ASOS's were at least an inch below normal. Jackson was nearly 4 inches below normal, only measuring 0.40 inches the whole month. In regards to temperature, all of the ASOS locations averaged within one degree of normal August temperatures, except for Jackson which averaged 2 degrees above normal. Jackson also set a record of 34 consecutive days at or above 95 degrees with the streak ending on August 16th. The previous record was 29 days set in the year 1896.

Weather Highlights...

The first weather event that affected the HSA was on the 7th and 8th when a boundary approached from the north and dropped about an inch to an inch and a half of rain in the Golden Triangle area. The boundary stalled over the HSA and, due to the overly dry conditions, the boundary was not able to generate any more noteworthy rainfall for the area. As the boundary eventually pushed south on the 9th, the Hattiesburg area was relieved of its dry conditions. Almost an inch of rain fell across the Southeast Mississippi while locations near Laurel received nearly 4 inches.

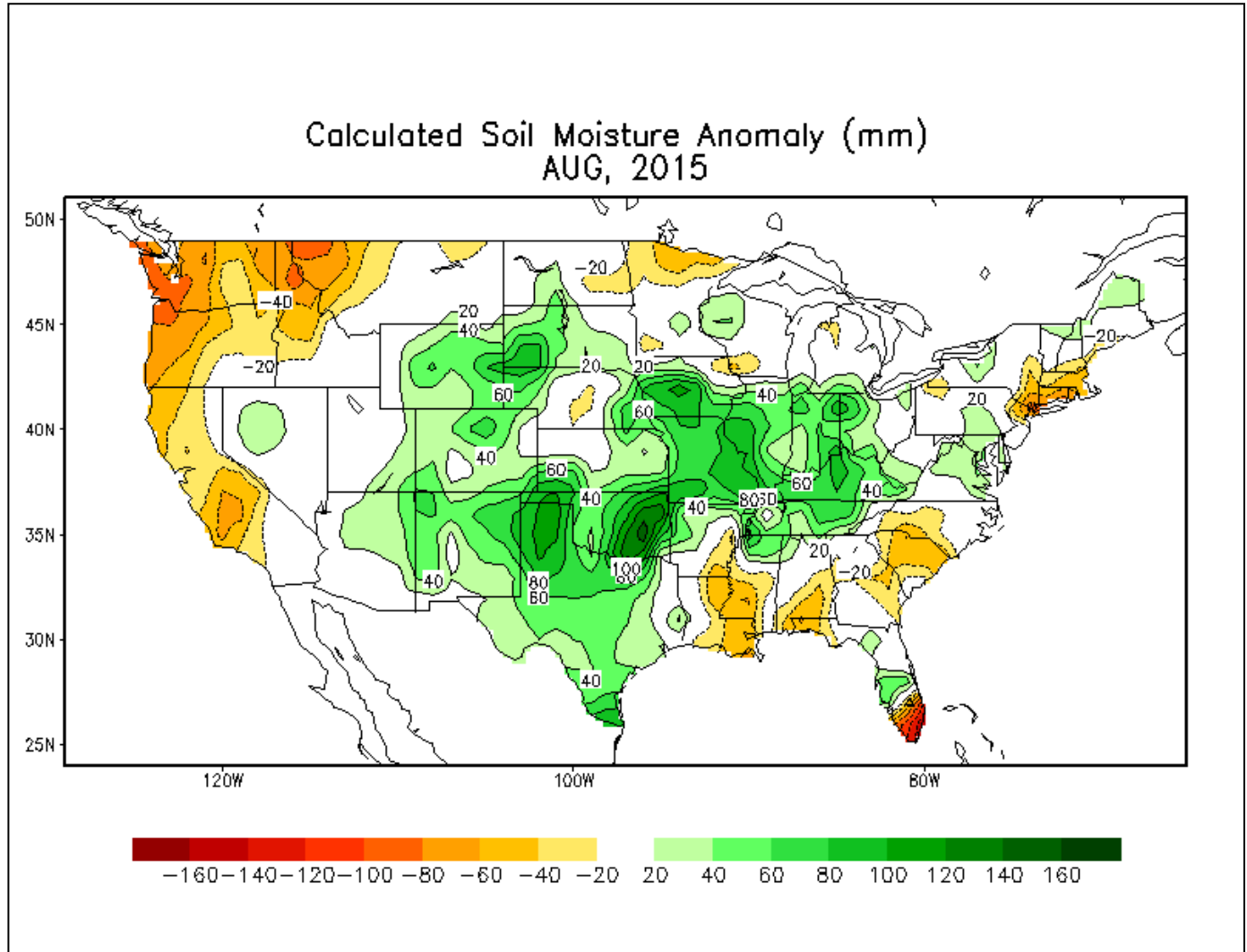
On the 11th, a front passed through the HSA and triggered some scattered showers and storms throughout the central HSA and particularly along the Mississippi River. Some of those locations received up to 2 inches of drought relief. Again, as the front continued to trek through the HSA on the 12th, some locations in the southwest received up to 2 inches of rainfall.

Southerly flow returned on the 16th and brought the opportunity for scattered afternoon showers and storms to the HSA again. While high pressure was dominant for the next week or so over the Deep South, afternoon showers and storms developed daily for a number of days without amounting to much accumulation for Central Mississippi. On the 20th, a legitimate cold front approached the HSA. It stalled and eventually washed out in the middle of the HSA by the 22nd. Again, limited rain fell throughout the area.

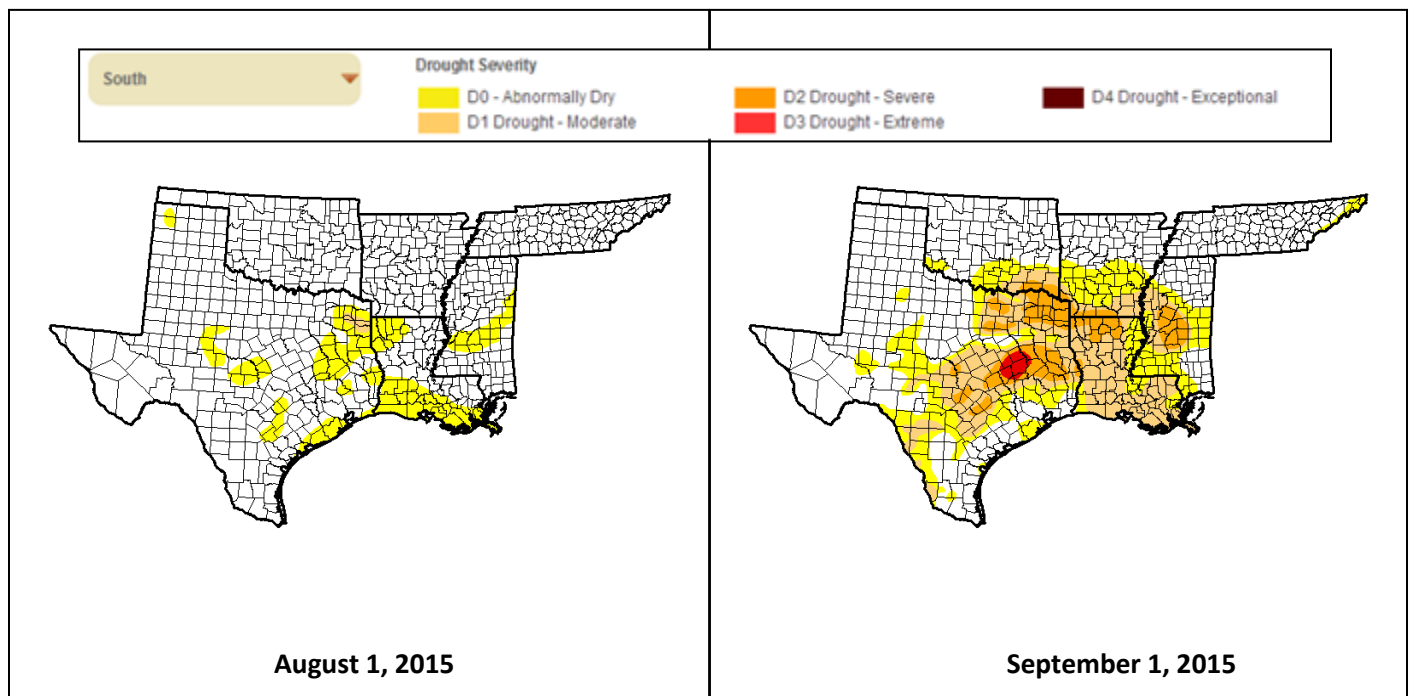
The rest of the month was very dry as high pressure dominated much of the eastern half of the U.S. for the majority of that time period.

River and Soil Conditions

Soil Moisture Map:

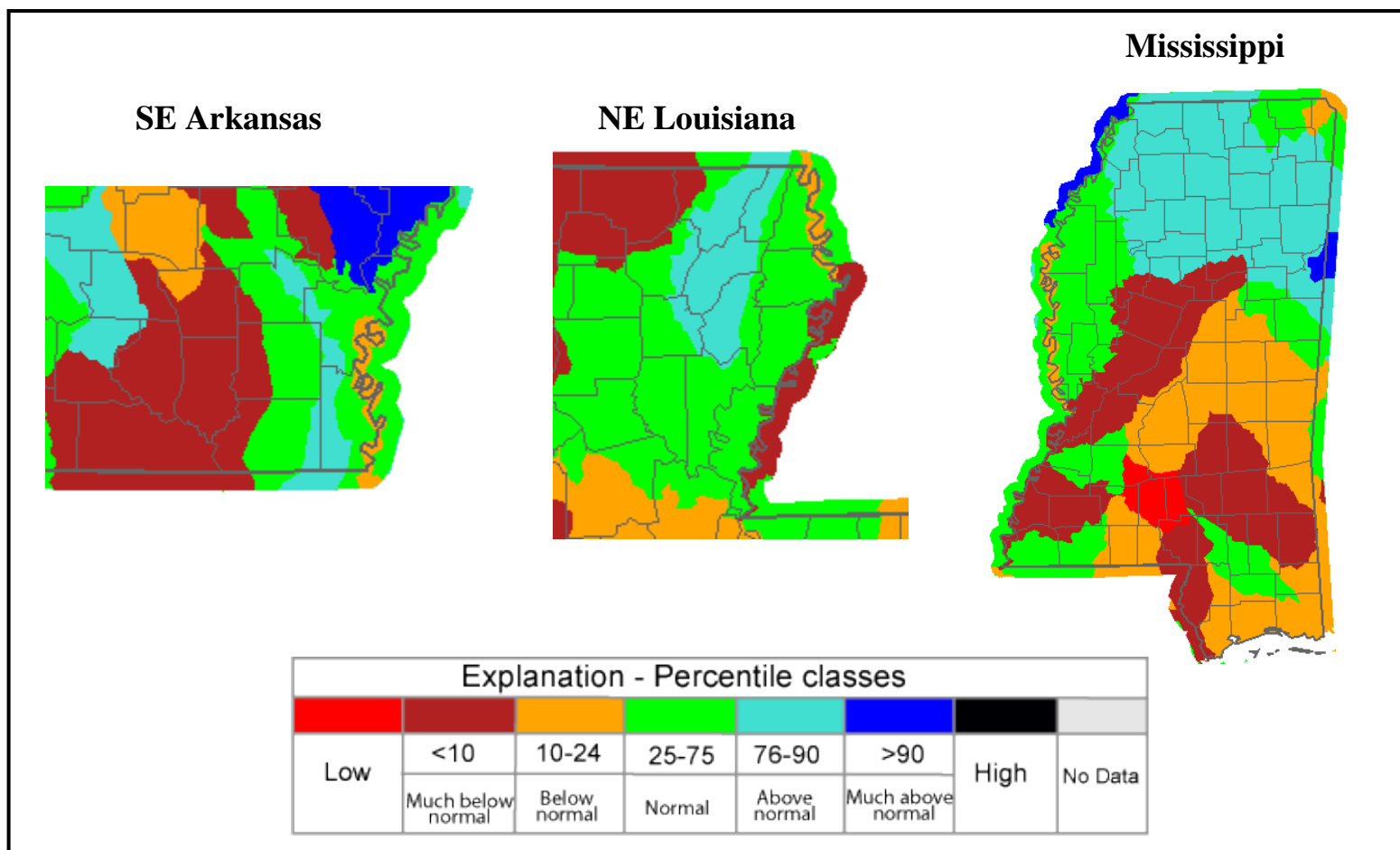


Drought Comparison:



Streamflow:

The United States Geological Survey's (USGS) August 2015 river streamflow records were compared with all historical August streamflow records. The average streamflow for this August was above normal for the Boeuf River and Bayou Macon basins in northeast Louisiana and southeast Arkansas. Below normal and much below normal streamflow was experienced on the Pearl, Big Black, Yazoo, Homochitto, Pascagoula, and the Mississippi River basins in Mississippi. Above normal streamflow was seen on the Tombigbee River basin in north Mississippi, while normal streamflow was experienced throughout the rest of the HSA.



River Conditions:

Rivers across the HSA continued to fall for much of the month except in areas of isolated heavy showers and thunderstorms where minor rises occurred. The only river flooding that occurred in August was prevailing flooding on the Mississippi River during the beginning of the month. For the conditions of the Mississippi River from Arkansas City to Natchez during August, refer to the hydrographs on the next page.

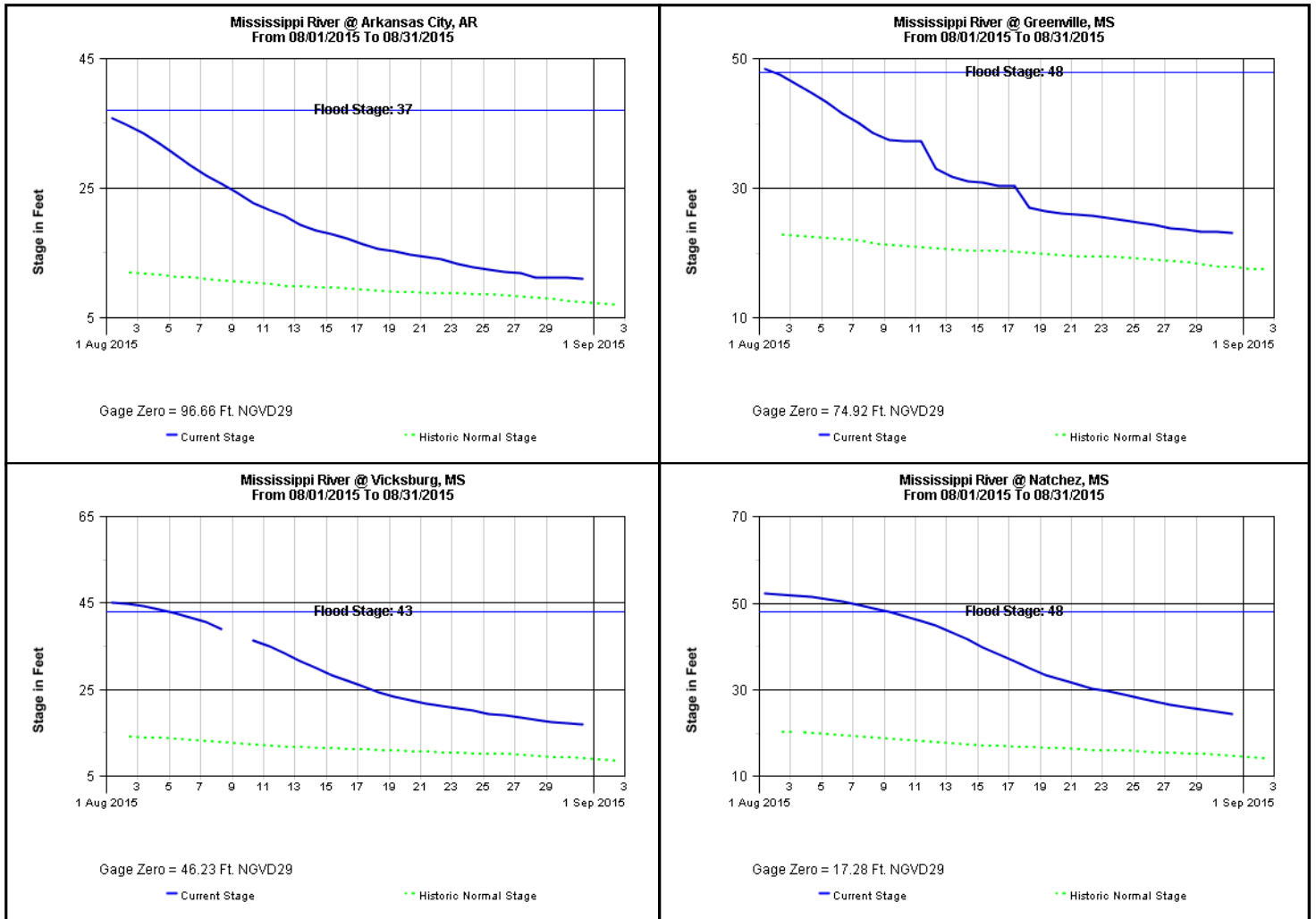
Climatic Outlook and Flood Potential:

The climatic outlook shows equal chances for above, below, and normal temperatures over the next three months for the entire HSA. In regards to precipitation, the outlook shows slightly above normal chances of precipitation for the entire HSA. Thus, based on current soil moisture, streamflow, and the 3-month climate outlook, the flood potentials are thus:

Pearl River System: Below Normal.
Yazoo River System: Below Normal.
Big Black River System: Below Normal.
Homochitto River System: Below Normal.
Pascagoula River System: Below Normal.
Northeast LA and Southeast AR: Normal.
Tombigbee River System: Normal.
Mississippi River: Below Normal.

Mississippi River Plots August 2015

Plots Courtesy of the United States Army Corps of Engineers



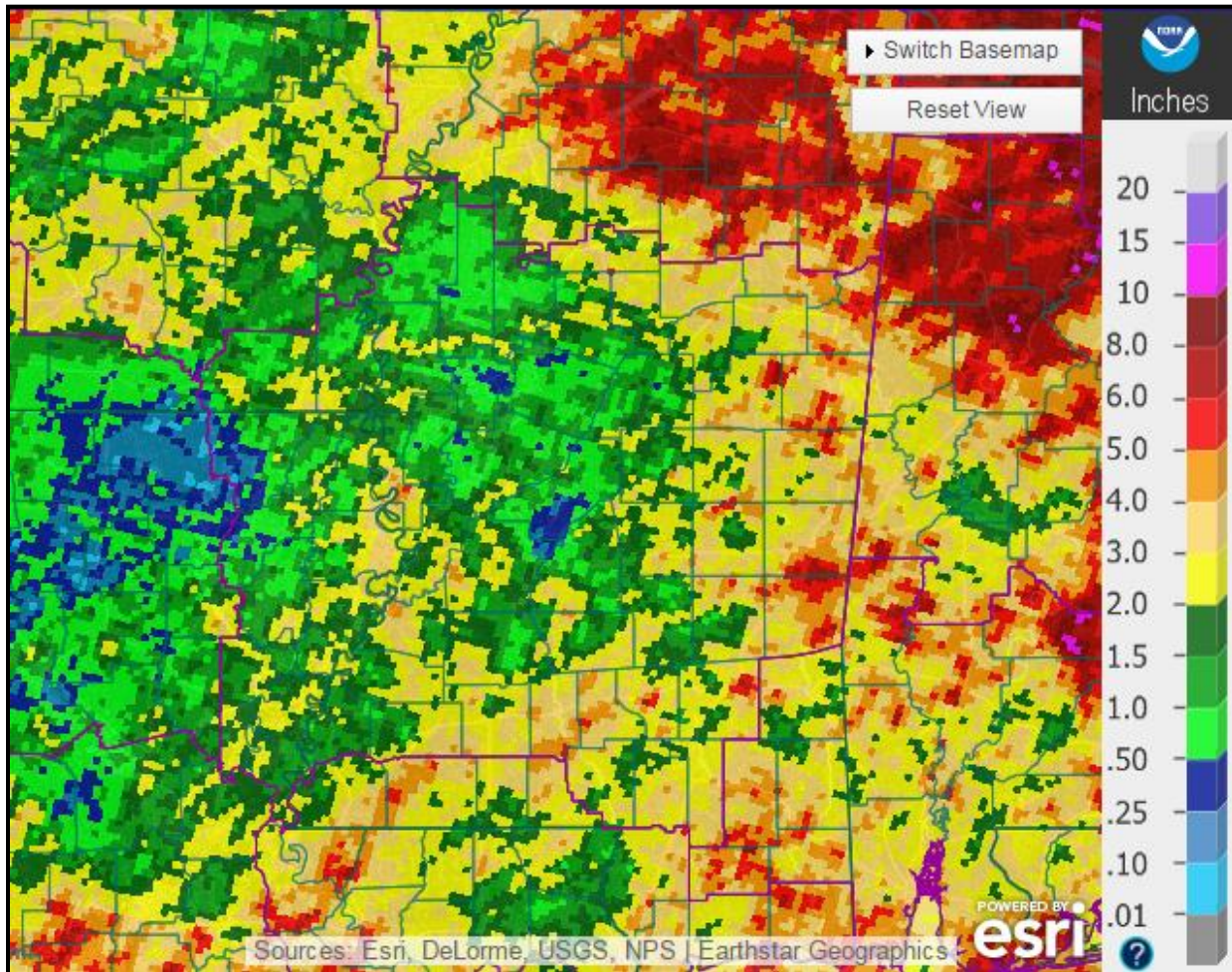
Monthly Preliminary High and Low Stages:

Location	Flood Stage (ft)	High Stage (ft)	Date	Low Stage (ft)	Date
Arkansas City	37	35.79	8/01	11.02	8/31
Greenville	48	48.46	8/01	23.13	8/31
Vicksburg	43	45.12	8/01	17.05	8/31
Natchez	48	52.31	8/01	24.54	8/31

Rainfall for the Month of August

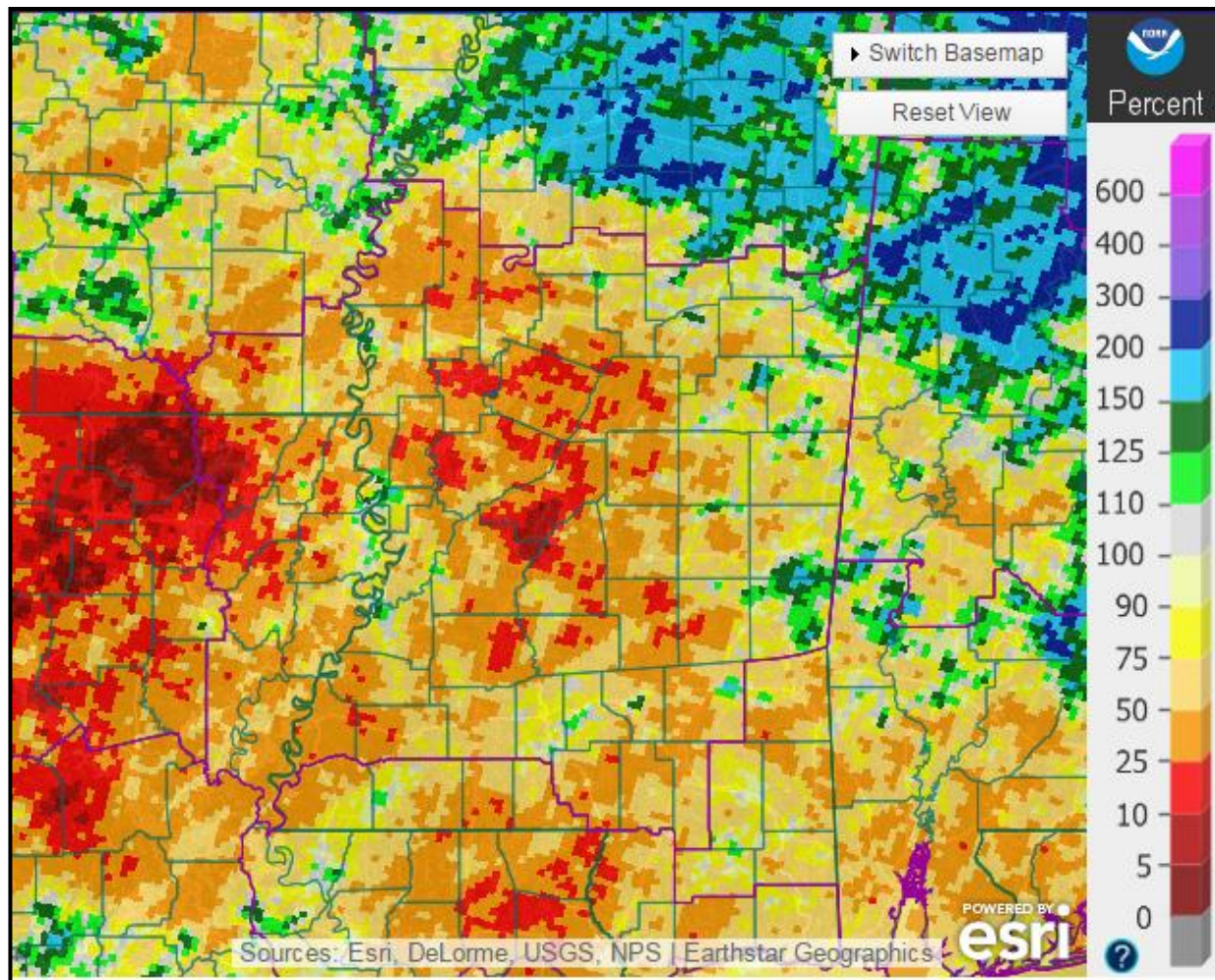
During the period from 7 am July 31st until 7 am August 31st, the largest rainfall amounts from NWS Cooperative Observers were: (Will add these after all COOP rainfall quality control checks have been completed later this month)

August Rainfall Estimates:



Note: Observer rainfall and MPE August differ due to time differences.

August Percent of Normal Precipitation:



Note: Observer rainfall and MPE August differ due to time differences.

August Rainfall for Selected Cities:

City (Airport)	Rainfall	Departure from Normal	2015 Rainfall	2015 Departure from Normal
Jackson (KJAN)	0.40	-3.84	36.61	-0.67
Meridian (KMEI)	4.10	+0.11	35.70	-3.26
Greenville (KGLH)	1.76	-0.70	*	*
Greenwood (KGWO)	1.76	-1.07	34.06	-0.01
Hattiesburg (KHBG)	2.46	-2.27	37.21	-4.95
Vicksburg (KTVR)	3.21	-0.44	40.45	+3.88

* - 2015 Greenville ASOS rainfall total for year are not accurate due to bad rainfall reports in the first quarter of year.

Total Flood Warning products issued: 0

Total Flood Statement products issued: 18

Total Flood Advisories MS River: 0

Daily Climate and Ag WX Products (AGO'S) issued: 31

Daily CoCoRaHS Rainfall Products (LCO'S) issued: 31

Daily River and Lake Summary Products (RVD'S) issued: 31

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Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District